

**GALLAGHER & KENNEDY**

P.A.  
LAW OFFICES

MICHAEL M. GRANT  
DIRECT DIAL: (602) 530-8291  
E-MAIL: MMG@GKNET.COM

**ORIGINAL**

**HAND DELIVERED**

Docket Control  
Arizona Corporation Commission  
1200 W. Washington St.  
Phoenix, AZ 85007

Re: *Southwest Transmission Cooperative, Inc. San Manuel Interconnect Application;*  
*Docket No. L-00000CC-09-0158-00142; Case No. 142*

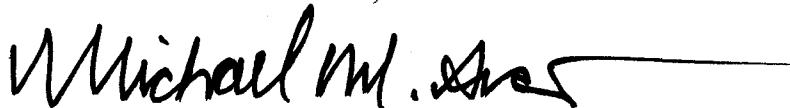
Dear Sir or Madam:

Enclosed for filing are 25 copies of the following:

1. The Direct Testimony of James Burson;
2. The Direct Testimony of Kenneth Kertell; and
3. A proposed form of the Certificate of Environmental Compatibility for the Siting Committee's consideration.

Very truly yours,

GALLAGHER & KENNEDY, P.A.



By:

Michael M. Grant

MMG/plp  
15169-12/2094813  
Enclosures

cc (w/enclosures): Larry Robertson, Attorney for Pinal County (mailed and e-mailed)  
The Honorable John Foreman, Attorney General's Office (delivered)

**Original and 25 copies** filed with Docket  
Control this 4<sup>th</sup> day of May, 2009.



0000096563

RECEIVED

2009 MAY -4 P 4: 33

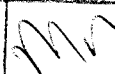
AZ CORP COMMISSION  
DOCKET CONTROL

May 4, 2009

2575 EAST CAMELBACK ROAD  
PHOENIX, ARIZONA 85016-9225  
PHONE: (602) 530-8000  
FAX: (602) 530-8500  
WWW.GKNET.COM

Arizona Corporation Commission  
**DOCKETED**

MAY - 4 2009

DOCKETED BY	
-------------	---

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24

Docket No. L-00000CC-09-0158-00142

Case No. 142

**May 4, 2009**

- 1 Q. Please state your name and business address.
- 2 A. My name is James Burson and my business address is 1000 South Highway 80, Benson,  
3 Arizona 85602.
- 4
- 5 Q. By whom are you employed and in what capacity?
- 6 A. I am the Manager of Transmission Engineering of Southwest Transmission Cooperative,  
7 Inc. ("Southwest" or "SWTC").
- 8
- 9 Q. Please give the Committee a brief description of your educational background and work  
10 experience.
- 11 A. I received a Bachelor of Science Degree in Electrical Engineering from Arizona State  
12 University in 1976 and a Masters of Science in Electrical Engineering from New Mexico  
13 State University in 1977. I am a registered professional engineer in the State of Arizona.  
14 During the course of my career, I have been employed by a large consulting engineering  
15 firm as well as several electric utilities. Projects in which I have been involved include  
16 the construction and start-up of coal and gas fired power plants, high-voltage electric  
17 substations and high-voltage transmission lines. I currently manage the construction of  
18 all substation and transmission line projects for Southwest Transmission Cooperative.
- 19
- 20 Q. What is the purpose of your testimony?
- 21 A. I am testifying in support of the Application ("Application") for a Certificate of  
22 Environmental Compatibility ("CEC") for the San Manuel Interconnect Project (the "San  
23 Manuel Project") filed by Southwest. My testimony will cover the basic components of  
24

1 and need for the San Manuel Project. Ken Kertell of SWCA discusses its environmental  
2 aspects in his testimony.

3  
4 Q. Please describe Southwest.

5 A. SWTC is a non-profit transmission cooperative owned by its members. The five Arizona  
6 Class A members of Southwest are non-profit distribution cooperatives that deliver  
7 power at retail to several rural areas of the state. Class A member Trico serves portions  
8 of Santa Cruz, Pima and Pinal Counties. Sulphur Springs Valley Electric Cooperative,  
9 Duncan Valley Electric Cooperative and Graham County Electric Cooperative serve  
10 many areas of Cochise, Greenlee and Graham Counties. Mohave Electric Cooperative  
11 furnishes power at retail in northwest Arizona. SWTC owns and operates a power  
12 delivery system that schedules and transmits power at wholesale into these areas served  
13 by its members and others. It owns approximately 613 miles of transmission line and 21  
14 substations. Our transmission system also interconnects to other utilities and some of the  
15 facilities are jointly owned with the Western Area Power Administration, Salt River  
16 Project and Tucson Electric Power Company. As part of the Network Service Agreement  
17 among Southwest, the Arizona Electric Power Cooperative, Inc. ("AEPCO") and the  
18 Class A members, Southwest is required to construct or acquire all transmission facilities  
19 necessary to reliably deliver electrical power from AEPCO (the cooperatives' power  
20 generator/supplier) to its Class A member systems.

1 Q. Please describe the San Manuel Project.

2 A. It involves the construction of approximately 4.5 miles of new double-circuit, 230 kV  
3 transmission line (which initially will be energized at 115 kV) located primarily on  
4 property owned by BHP Copper, Inc. ("BHP"). Less than a mile of the line is on state  
5 land managed by the Arizona State Land Department ("ASLD") and Bureau of Land  
6 Management ("BLM") land. The new line will originate at the existing SWTC Apache to  
7 Hayden 115 kV transmission line and will terminate at the existing Arizona Public  
8 Service ("APS") San Manuel Substation. In order to connect to the substation, Southwest  
9 will acquire two bays from APS. Along about three miles of the transmission line,  
10 Southwest will also install a 46 kV line for BHP's use built to 69 kV standards on the  
11 new structures. Southwest will remove the existing BHP 46 kV line following  
12 installation of this new line.

13  
14 The new transmission line will consist of approximately 33 self-weathering steel,  
15 monopole double-circuit structures spaced approximately 1,000 feet apart. The structures  
16 will be between approximately 115 and 132 feet in height. The conductors are aluminum  
17 conductor steel reinforced, which are 1,272 kcmil (thousand circular mil) or about 1.345  
18 inches in diameter. Six main conductor wires will be attached to the structure insulators  
19 and there will be two 3/4-inch ground wires. The minimum height of the conductors  
20 above ground along the 230 kV line is 24.9 feet (as required by federal agency Rural  
21 Utilities Service standards), except where the line crosses the San Manuel Arizona  
22 Railroad, which is owned by BHP. Here, the clearance height is 32.9 feet. For the 46 kV  
23  
24

1 line, the minimum clearance is 21.7 feet and it is 29.7 feet where the line crosses the  
2 railroad tracks.

3  
4 East to west along the line route, elevations range from approximately 2,500 feet above  
5 mean sea level ("amsl") where the line crosses the San Pedro River floodplain to  
6 approximately 2,900 feet amsl at the interconnection with the existing Apache Hayden  
7 115 kV transmission line. The straight-line distance is approximately 4.4 miles and the  
8 length of the transmission line is approximately 4.5 miles.

9  
10 Q. Why is the San Manuel Project needed?

11 A. The primary reason is Trico's need for more power to support load growth in  
12 southeastern Pinal County. To meet those increased demands, Southwest must establish  
13 this second interconnection point with the APS system at the San Manuel Substation.  
14 Currently, SWTC has only one interconnection with APS at its Phoenix area Westwing  
15 substation which is available to supply service to Trico for these loads in Pinal County.  
16 APS has indicated that their ability to wheel power from the Westwing substation to  
17 southeastern Pinal County is limited and will be constrained in the near future. Thus, the  
18 San Manuel Project provides a second and very essential interconnection with APS to  
19 reduce that constraint and assure reliable service to Trico members. Additionally, the  
20 interconnection at the San Manuel Substation will provide a direct transmission path from  
21 AEPCO's Apache Generating Station to southeastern Pinal County for the first time.  
22 That is important for both economic supply and reliability purposes. Further, BHP is  
23 actively marketing their property in this area as a site suitable for a solar generation  
24

1 project. The San Manuel Project will encourage the development of these potential  
2 renewable resources in this area. Finally, APS serves electricity in Bisbee and Douglas.  
3 This new interconnection will allow APS to continue service to those areas in certain  
4 emergency conditions.  
5

6 Q. Please briefly summarize the engineering analysis steps SWTC has taken in relation to  
7 this matter.

8 A. Southwest and its Class A members jointly plan for the construction or acquisition of  
9 necessary new transmission facilities. In 2002, Trico initially identified a need in the  
10 future for a second point of delivery in southwest Pinal County adjacent to the existing  
11 APS San Manuel to Oracle 115 kV line. Over the next two years, the planning  
12 departments of Trico and SWTC met several times to evaluate various ways to reduce  
13 line losses, assure acceptable voltage levels and meet increasing service demands  
14 occurring in Pinal County. After analyzing various options and factors including  
15 environmental impact, reliability and economics, the facilities presented in this  
16 Application were chosen as the best way to address those issues. Given that, in 2004,  
17 Trico and Southwest formally included the San Manuel Project in their future  
18 construction work plans.  
19

20 Q. Please summarize SWTC's notification and public outreach efforts.

21 A. Exhibit K to the Application describes various local, tribal, state and federal written  
22 contacts. There have also been numerous meetings with public agencies and private  
23 entities including the BLM, U.S. Fish and Wildlife Service, ASLD and BHP. In addition  
24

1 to these meetings, a public open house was held on March 10, 2009 in San Manuel to  
2 solicit comments from the general public. The Application's Exhibit K-2 is a post card  
3 which was mailed to more than 1,600 residents within a one-mile radius of the San  
4 Manuel Project announcing the open house. In addition to the post cards, the 22 parcel  
5 owners who are within a half mile of the project received a letter and map which gave  
6 more details on it. Exhibits K-5 and K-6 are materials distributed at the open house; a  
7 summary of issues discussed at the open house; and comments received from the public  
8 and agencies during the scoping process.

9  
10 Q. Mr. Burson, please summarize the notice procedures used for this hearing before the  
11 Siting Committee.

12 A. SWTC caused to be published the Notice of Hearing in the *Casa Grande Dispatch*, a  
13 newspaper of general circulation in Pinal County. The quarter-page advertisement was  
14 run on April 1 and April 3, 2009 and an affidavit of this publication has been filed with  
15 Docket Control. Copies of the Notice of Hearing were also mailed certified to Sheri  
16 Cluff, the Clerk of the Pinal County Board of Supervisors; Ruben Ojeda of the Arizona  
17 State Land Department; Linda Hughes of BLM; and Josh Avery at the Arizona Game and  
18 Fish Department on April 7, 2009 by our counsel, Gallagher & Kennedy, which received  
19 return receipts on each of those mailings. Finally, on April 21, 2009, SWTC physically  
20 posted the sign approved for notice of this hearing along River and Redington Roads, at  
21 the proposed point of interconnection with the existing Apache/Hayden line and along the  
22 proposed route. The published and form of posted notice are attached as Exhibit JB-1.



1 Q. What is the construction timetable for the San Manuel Project?

2 A. SWTC needs to have the new line and associated interconnection at the San Manuel  
3 substation in service before the summer of 2010. Site preparation work for the new  
4 transmission line is scheduled to begin in September. Foundation and electrical  
5 construction work are scheduled to start in October and the line is projected to be  
6 available for service by May of 2010. In addition to securing this CEC, Southwest must  
7 also obtain a right-of-way grant from BLM and finalize right-of-way acquisitions from  
8 ASLD. These approvals and acquisitions are scheduled to be completed so that  
9 construction can commence in September.

10  
11 Q. Please summarize your conclusions and recommendations on the San Manuel Project.

12 A. The San Manuel Project is needed to support the current and anticipated electric needs in  
13 this area of the state for an adequate, economic and reliable supply of power. The San  
14 Manuel Project will reduce line losses, assure acceptable voltage levels, meet increasing  
15 demand in Pinal County and encourage the development of renewable resources. Finally,  
16 as Ken Kertell testifies, construction of the San Manuel Project has very minimal  
17 environmental impacts. CEC conditions adopted by the Committee will further minimize  
18 its impact on the environment and ecology. Southwest requests that the Committee grant,  
19 and the Commission affirm and approve, a CEC for the San Manuel Project.

20  
21 Q. Does this conclude your testimony?

22 A. Yes, it does.  
23

**EXHIBIT JB-1**

STATE OF ARIZONA

COUNTY OF PINAL

SS.

## Affidavit of Publication

DONOVAN M. KRAMER SR. first being duly sworn deposes and says: That he is a native born citizen of the United States of America, over 21 years of age, that he is publisher of the Casa Grande Dispatch, a daily newspaper published at Casa Grande, Pinal County, Arizona, Tuesday through Sunday of each week; that a notice, a full, true and complete printed copy of which is hereunto attached, was printed in the regular edition of said newspaper, and not in a supplement thereto, for TWO consecutive issues the first publication thereof having been on the 1ST

day of APRIL A.D., 2009

Second publication APRIL 03, 2009

Third publication \_\_\_\_\_

Fourth publication \_\_\_\_\_

Fifth publication \_\_\_\_\_

Sixth publication \_\_\_\_\_

## **CASA GRANDE DISPATCH**

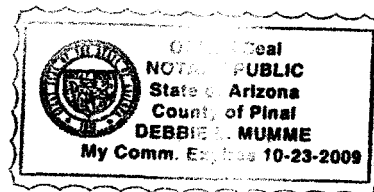
By Donovan M. Kramer Sr.  
DONOVAN M. KRAMER SR., Publisher

Sworn to before me this 14th

day of April A.D. 2009

Debbie R. Mumme

Notary Public in and for the County  
of Pinal, State of Arizona



# NOTICE OF HEARING

## Docket No. L-00000CC-09-0158-00142

### Case No. 142

A PUBLIC HEARING WILL BE HELD before the Arizona Power Plant and Transmission Line Siting Committee ("Committee") regarding the Application of Southwest Transmission Cooperative, Inc. ("Applicant") for a Certificate of Environmental Compatibility authorizing the 230-kV San Manuel Interconnect Project ("Project") in Pinal County, Arizona. The hearing will be held at the Hilton Tucson El Conquistador, 10000 North Oracle Road, Tucson, Arizona 85704. The hearing shall begin at 10:00 a.m. on May 12, 2009 and continue at 9:00 a.m. on May 13, 2009, if necessary. The hearing will adjourn at approximately 5:00 p.m. Additional hearing days, if necessary, will be noticed on the Project and Arizona Corporation Commission ("ACC") websites. The Applicant's Project website can be found at [www.southwesttransmission.coop](http://www.southwesttransmission.coop). The ACC website is: [www.azcc.gov/AZ\\_Power\\_Plant/LineSiting-Calendar.asp](http://www.azcc.gov/AZ_Power_Plant/LineSiting-Calendar.asp).

#### PUBLIC COMMENT MAY BE TAKEN AT THE BEGINNING OF EACH HEARING DAY.

The Project consists of approximately 4.5 miles of double-circuit 230-kV line which initially will be energized at 115 kV connecting the existing Apache to Hayden transmission line to the existing APS San Manuel Substation. A general location map of the Project area and the proposed route is set forth below.

Beginning at the Apache to Hayden 115-kV transmission line, the new line will extend about one mile in a southwesterly direction to River Road. The line then will run approximately one mile to BHP property and then 2.5 miles to the San Manuel Substation, which is north of the town of San Manuel.

More complete maps, along with more detailed textual descriptions of the proposed routes are available in the Application itself and on the Project website. The Application, including detailed maps of the proposed Project, is on file with the Docket Control Center of the Arizona Corporation Commission, 1200 West Washington Street, Suite 108, Phoenix, Arizona 85007.

Depending on the issues raised and the number of intervenors appearing during the hearing, the Committee may deem it appropriate at some point to recess the hearing to a time and place to be announced during the hearing, or to be determined after the recess. These dates and places will be posted on the Project and ACC websites. At the discretion of the Committee, such resumed hearings may be held at a date, time and place designated by the Committee or its Chairman.

**NOTE: NOTICE OF SUCH RESUMED HEARING WILL BE GIVEN. PUBLISHED NOTICE OF SUCH RESUMED HEARING IS NOT REQUIRED.**

Each county and municipal government and state agency interested in the proposed Project and desiring to become a party to the proceeding, shall, not less than ten (10) days before the date set for hearing, file with the Director of Utilities, Arizona Corporation Commission, 1200 West Washington Street, Phoenix, Arizona 85007, a notice of its intent to be a party.

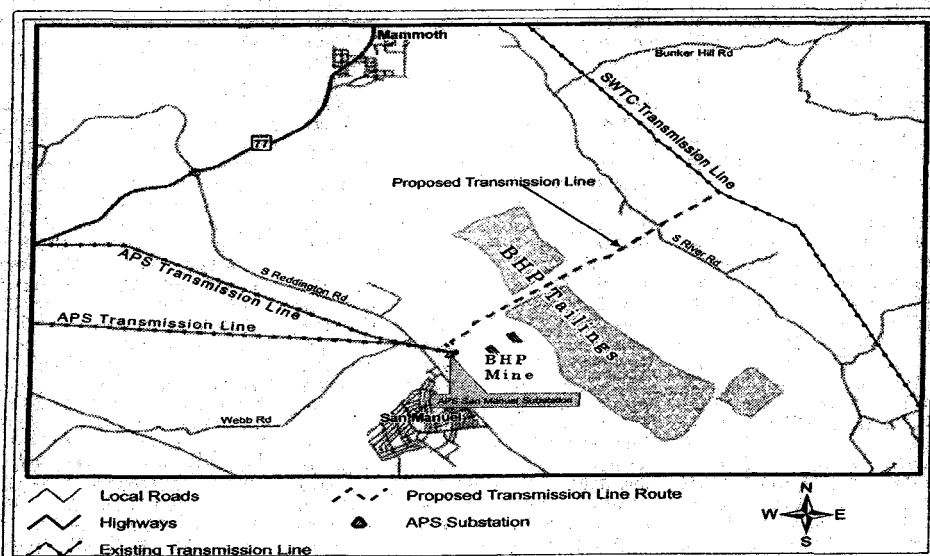
Any domestic, non-profit corporation or association, formed in whole or in part to promote conservation of natural beauty, to protect the environment, personal health or other biological values, to preserve historical sites, to promote consumer interests, to represent commercial and industrial groups or to promote the orderly development of the area in which the Project is to be located and desiring to become a party to the certification proceeding, shall, not less than ten (10) days before the date set for hearing, file with the Director of Utilities, Arizona Corporation Commission, 1200 West Washington Street, Phoenix, Arizona 85007, a notice of its intent to be a party.

The Committee or its Chairman, at any time deemed appropriate, may make other persons parties to the proceedings.

Any person may make a limited appearance at the hearing by filing a statement in writing with the Director of Utilities, Arizona Corporation Commission, 1200 West Washington Street, Phoenix, Arizona 85007, not less than five (5) days before the date set for hearing. A person making a limited appearance shall not be a party or have the right to present testimony or cross-examine witnesses.

This proceeding is governed by Arizona Revised Statutes ("A.R.S.") §§ 40-360 to 40-360.13 and Arizona Administrative Code Rules R14-3-201 to R14-3-220 and R14-3-113. No substantive communication, not in the public record, may be made to any member of the Committee. The written decision of the Committee shall be submitted to the Arizona Corporation Commission pursuant to A.R.S. § 40-360.07. Any person intending to be a party before the Arizona Corporation Commission must be a party to the certification proceedings before the Committee.

No. of publications: 2; dates of publication: April 1, 3, 2009.



# **PUBLIC HEARING**

## **SOUTHWEST TRANSMISSION 230 kV SAN MANUEL INTERCONNECT PROJECT**

**Arizona Corporation Commission Docket No. L-000000CC-09-0158-00142**

**The public is invited to participate at a public hearing before the  
Arizona Power Plant and Transmission Line Siting Committee**

**commencing on:**

**MAY 12, 2009 at 10:00 A.M.  
MAY 13, 2009 at 9:00 A.M., IF NECESSARY**

**HILTON TUCSON EL CONQUISTADOR  
10000 N. ORACLE RD.  
TUCSON, AZ 85704**

**INFO: KEVIN BARNES, (520) 586-5457**

1                                   **BEFORE THE ARIZONA POWER PLANT**  
2                                   **AND TRANSMISSION LINE SITING COMMITTEE**

3   IN THE MATTER OF THE APPLICATION  
4   OF SOUTHWEST TRANSMISSION  
5   COOPERATIVE, INC., OR ITS ASSIGNEES,  
6   FOR A CERTIFICATE OF ENVIRONMENTAL  
7   COMPATIBILITY FOR THE SAN MANUEL  
8   INTERCONNECT PROJECT LOCATED IN  
9   THE VICINITY OF SAN MANUEL IN PINAL  
10   COUNTY, ARIZONA

Docket No. L-00000CC-09-0158-00142

Case No. 142

11                                   **Direct Testimony of**

12                                   **Kenneth Kertell**  
13                                   **SWCA Environmental Consultants**

14                                   **on Behalf of**

15                                   **Southwest Transmission Cooperative, Inc.**

16  
17  
18  
19  
20                                   **May 4, 2009**  
21  
22  
23  
24

1 Q. Please state your name for the record.

2 A. Kenneth Kertell.

3

4 Q. Mr. Kertell, by whom are you employed and in what capacity?

5 A. I am employed by SWCA Environmental Consultants ("SWCA") in SWCA's Tucson  
6 office. I serve as a Senior Scientist and Senior Project Manager on a variety of utility  
7 projects, including the subject of this application, the San Manuel Interconnect Project  
8 (the "Project").

9

10 Q. Please provide the Committee with a brief description of your educational background  
11 and work experience.

12 A. I have both Bachelor and Master of Science degrees in Wildlife Biology from Humboldt  
13 State University in California. During the past 30 years, I have worked as a terrestrial  
14 biologist in California, Utah, Alaska and Arizona. Since joining SWCA in 1994, I have  
15 managed and/or worked as a consultant on a variety of transmission projects in Arizona,  
16 including this Project, the San Joaquin Substation, the Parker-Bagdad Substation, the  
17 Hackberry Realignment and the Winchester Interconnect.

18

19 I am an experienced third-party preparer of National Environmental Policy Act  
20 ("NEPA") documents. I routinely perform environmental analysis for projects that  
21 involve federal and state siting and environmental permitting, including Biological  
22 Evaluations for the presence of federally listed species, special-status species surveys and  
23 formal and informal Section 7 consultations for Endangered Species Act compliance.

24

1 I have coordinated activities and processes for projects involving a variety of agencies,  
2 including the Forest Service, National Park Service, U.S. Fish and Wildlife Service  
3 ("USFWS"), U.S. Army Corps of Engineers, Bureau of Land Management ("BLM"),  
4 Bureau of Indian Affairs, Rural Utilities Service and various Native American tribes.

5  
6 Q. What is SWCA?

7 A. SWCA is an employee-owned company composed of environmental planners, biologists,  
8 geographic information system specialists, historic preservation specialists,  
9 archaeologists, anthropologists, regulatory specialists, permit compliance managers,  
10 public involvement specialists and a wide array of cultural and natural resource scientists.  
11 SWCA provides consulting services related to the management of both natural and  
12 cultural resources and we extend these services to clients in the private and public  
13 sectors. Established in 1981, SWCA's corporate headquarters are in Phoenix, Arizona.  
14 We employ more than 600 professionals and have 22 offices located throughout the U.S.  
15 and its territories, as well as the Pacific Islands. SWCA is an Engineering News-Record  
16 Top 200 Environmental Firm.

17  
18 The services SWCA provided to this Project include the following:

- 19 • Performing NEPA compliance for the BLM as a third-party preparer.
- 20 • Preparing a Biological Assessment for ESA compliance.
- 21 • Conducting formal and informal Section 7 consultation.
- 22 • Preparing the Arizona Power Plant and Transmission Line Siting Committee  
23 CEC Application (the "Application").



- Assisting with the public open house.
- Performing visual impact assessments.
- Conducting scoping and coordination with relevant agencies.
- Performing environmental inventory and analysis.
- Performing impact assessment.
- Assisting in preparing effective and appropriate mitigation measures.

Q. What is the purpose of your testimony?

A. On Southwest Transmission Cooperative's ("Southwest" or "SWTC") behalf, I will testify about local land use compatibility, endangered species issues and other environmental considerations in relation to the Project as covered generally in Exhibits B through J to the Application. I will also summarize the cultural resource conclusions of another firm. As Project Manager, I have supervised the work of various resource experts and am intimately familiar with all aspects of the Project and the studies performed by SWCA.

Q. Please explain the process followed and activities performed by you and your staff that allowed you to reach the conclusions in the Application.

A. The environmental analysis performed on the Project can be summarized in the following two stages:

Perform Detailed Study of the Proposed Route

The refinement of the Proposed Route involved the examination of plans, reports and documents concerning the Project. It also involved a field inspection of the Proposed

1 Route for sensitive resources and included surveys for saguaro cacti along the proposed  
2 easternmost access road alignment ("Access Road A") (attached as Exhibit KK-1). Also  
3 conducted at this stage were informal meetings with USFWS to discuss measures to  
4 avoid, minimize and mitigate impacts to threatened and endangered species.

5 Apply for Regulatory Approvals

6 During this step, the Biological Assessment (for impacts to southwestern willow  
7 flycatcher and lesser long-nosed bat) was prepared and submitted to BLM to initiate the  
8 formal Section 7 consultation under the ESA. The Environmental Assessment also was  
9 prepared and submitted to BLM to address NEPA requirements. The Application was  
10 then prepared and submitted to this Committee.

11  
12 Q. Please describe the general conditions in the Project area.

13 A. The Project area can be divided into three main segments. First, the eastern segment of  
14 the proposed alignment, which is approximately one mile long, extends from River Road  
15 east to the existing Southwest Apache to Hayden 115 kV line. This segment is located in  
16 relatively steep, rugged terrain in the foothills of the Galiuro Mountains on private land  
17 owned by BHP, State Trust and BLM land. A fairly dense population of saguaro cactus  
18 is located along this segment. Second, the middle segment of the alignment, which is  
19 about three-quarters of a mile long, is in the San Pedro River floodplain west of River  
20 Road. This land is owned by BHP. Included in this segment is relatively flat former  
21 agricultural land—which is not currently used for any active agriculture or grazing—and  
22 is overgrown with small mesquites. Along the remainder of this segment, the alignment  
23 crosses mesquite woodland on either side of the main channel of the San Pedro River as  
24

1 well as a narrow stringer of riparian vegetation along the banks of the San Pedro River,  
2 which is perennial at this location. Finally, the western segment of the alignment is  
3 located in uplands above the San Pedro River floodplain. This segment, which extends  
4 approximately 2.6 miles to the San Manuel substation, is located entirely on BHP land. It  
5 is heavily disturbed due to its former use for copper processing. The processing site once  
6 included a mill, concentrator and smelter. But, all of these facilities have now been  
7 removed and the site has been reclaimed. Remaining evidence of these facilities is  
8 limited to reclaimed slag disposal areas, reclaimed tailings impoundments (the alignment  
9 passes between two of these impoundments) and offices and shops related to reclamation  
10 efforts. Immediately south of the plant site is the town of San Manuel. SWTC has  
11 prepared a computerized fly-over of the project which we will display for the Committee  
12 at the hearing.

13  
14 Q. Has a NEPA document been prepared for the Project?

15 A. Yes. It is Exhibit B to the Application. Because the Project crosses approximately 360  
16 feet of BLM land, Southwest is applying to the BLM for an ROW grant. The appropriate  
17 NEPA document for this Project is the Environmental Assessment ("EA").

18  
19 Q. Has the BLM reviewed and approved the EA for the Project?

20 A. BLM reviewed the draft EA and requested that additional information and mitigation be  
21 incorporated into the document prior to approval. The requested information has been  
22 added and a final draft is currently being prepared.

1 Q. The Committee evaluates several factors to determine the compatibility and suitability of  
2 projects like the San Manuel Interconnect Project. I'd like to ask you about each of  
3 those. First, is the Project compatible with existing and proposed land use development?

4 A. Yes. Our assessment concluded that the Project was compatible for several reasons,  
5 including the following:

- 6 • The existing Pinal County Comprehensive Plan allows the development as a  
7 permitted use.
- 8 • The Project conforms to the BLM's Final Safford Resource Management Plan  
9 and Environmental Impact Statement, which considers right-of-way grants on a  
10 case-by-case basis.
- 11 • Projected impacts to saguaro cacti will be mitigated based on our collaborative  
12 efforts and discussions with the USFWS and BLM.
- 13 • The indirect impacts to residents are at very low levels because the line is distant  
14 from human habitation and situated mostly on previously disturbed lands,  
15 including the BHP property.

16  
17 Q. Will the Project adversely impact any threatened or endangered species?

18 A. A review of federally listed species protected by the ESA identified the southwestern  
19 willow flycatcher (endangered) and lesser long-nosed bat (endangered) as potentially  
20 occurring in the Project area. It is unlikely that the Project would directly impact either  
21 of these species. It could, however, impact designated critical habitat for the  
22 southwestern willow flycatcher and potential foraging habitat for the lesser long-nosed  
23  
24

1 bat. Exhibits C and D to the Application contain detailed information on this subject.

2 Information concerning these determinations is summarized below:

3 Southwestern willow flycatcher

- 4 • There are no documented nesting records in the Project area; the nearest record of
- 5 any nesting is 1.3 miles upstream.
- 6 • Protocol surveys resulted in no detections; additional surveys are planned for this
- 7 spring.
- 8 • There will be no Project impacts to potential nesting habitat (i.e., cottonwood-
- 9 willow vegetation).
- 10 • There will be an alteration of 0.62 acre of critical habitat, but only 0.06 acre
- 11 exhibits primary constituent elements.

12 Lesser long-nosed bat

- 13 • There are no impacts to roost sites by the Project.
- 14 • Indirect impacts might result from the removal of up to 101 saguaro cacti, which
- 15 is a lesser long-nosed bat forage plant. But, this is less than 7% of the saguaros
- 16 present in the 106-acre area. Therefore, the loss of foraging habitat is considered
- 17 insignificant.
- 18 • The Project will have no effect on individual lesser long-nosed bats.

19  
20 Q. Exhibit E to the Application discusses vegetation, fish and wildlife conditions in the  
21 Project's vicinity. Please discuss those issues.

22 A. Construction of the Project will impact a small area of habitat (less than 10 acres) for  
23 regionally common wildlife species. Construction-related disturbance could result in the  
24

1 short-term displacement of some wildlife species, but no significant long-term impacts to  
2 local wildlife populations are anticipated, given the limited area of disturbance and the  
3 large amount of similar habitat present in the surrounding area. The Project will not  
4 impede wildlife movement through existing corridors. No construction will occur in the  
5 active channel of the San Pedro River. Therefore, there will be no impacts to fish habitat  
6 as a result of the Project.

7  
8 The majority of the land crossed by the Project has previously been disturbed by mining  
9 and agriculture. Some areas crossed will result in impacts to native vegetation, primarily  
10 mesquite woodland and sensitive plant species like saguaro cactus. Project impacts were  
11 considered in light of other regulations and planning guides. Among them are the  
12 Migratory Bird Treaty Act and Arizona Native Plant Law. To minimize impacts to  
13 saguaros, Southwest will provide a biological monitor during road and transmission line  
14 construction in areas which have high densities of saguaros. Additionally, SWTC will  
15 transplant all saguaros greater than five feet tall. Southwest will also transplant all barrel  
16 cacti, hedgehog cacti and other small succulents impacted by construction activities in the  
17 Project area. In addition to Arizona Native Plant Law requirements, Southwest has  
18 agreed to pay an in-lieu fee—based on the stumpage value of saguaro cactus that likely  
19 would be impacted—of about \$9,000 to AGFD for future research benefiting the lesser  
20 long-nosed bat. SWTC will also reimburse BLM for impacts to vegetation on BLM land.  
21 In general, potential impacts to resources and these areas are considered moderate.

1 Q. WestLand Resources, Inc. ("WestLand") evaluated cultural resources in the Project area  
2 and vicinity. Please describe the studies they conducted and their conclusions.

3 A. A Class III cultural resource survey and report was prepared for the Project. A copy of  
4 the report is Exhibit F-1 to the Application. Approximately 1,056 acres of land were  
5 surveyed and ten sites are recommended as eligible for listing on the National Register of  
6 Historic Places ("NRHP"). Southwest has sited the access roads and transmission  
7 structures to avoid NRHP-eligible sites in the Project area. The Project will therefore  
8 have no effect on these sites. Further, monitoring during construction near register-  
9 eligible sites will also be performed by a qualified archaeologist to ensure avoidance.

10  
11 Q. Are there any plans to develop any recreational resources in the vicinity of the San  
12 Manuel Interconnect Project?

13 A. No. The general public would not be able to use the proposed new access roads for  
14 recreation. BHP wants the roads on their land to be gated, including the initial  
15 approximately 700 feet of Access Road A which connects River Road to the existing  
16 SWTC Apache to Hayden 115 kV line in the Galiuro Mountains. Immediately east of  
17 BHP land, Access Road A would cross state lands and typically these lands also require  
18 gating. Because only a small portion of Access Road A crosses BLM land, it also would  
19 not be open to the public.

20  
21 The Galiuro Wilderness is located approximately five miles east of the Project area.  
22 Motorized and mechanized vehicles and equipment are not permitted in the designated  
23 Wilderness areas. BLM is not considering any additional recreational uses in this area,  
24

1 which are currently limited to hiking and nature study. The Project is not expected to  
2 impact existing recreation opportunities.

3  
4 Q. Exhibit F contains a discussion of scenic resources. Did SWCA evaluate the Project's  
5 aesthetic and scenic impacts and, if so, what conclusions did you reach?

6 A. Yes, we evaluated those issues and determined that impacts to viewers would be  
7 moderate, which is consistent with the objectives of BLM's Visual Resource  
8 Management Class III category for the area. According to BLM, the Project—although  
9 visible from populated areas and travel routes—would be constructed in a landscape that  
10 has been previously modified by various land use activities, including agricultural, rural  
11 residential, mining, utilities and transportation developments. A more detailed review of  
12 the visual analysis is included in Exhibit F of the Application and in the Visual Resource  
13 Section of the Environmental Assessment (Exhibit B). Included as Figures 5 and 6 are  
14 viewshed analyses based on the placement of transmission structures and an access road  
15 in the Galiuro Mountains.

16  
17 Q. Finally, what conclusions did you reach concerning any noise, radio or television  
18 interference associated with the Project?

19 A. We concluded that the combination of very few listeners and the low potential noise  
20 created by a 115 kV transmission line results in a low potential for noise impacts.  
21 Radio interference is most likely to affect the amplification modulation ("AM") broadcast  
22 band; frequency modulation ("FM") radio is rarely affected by transmission lines. Only  
23 AM receivers located immediately adjacent to the transmission line have the potential to  
24



1 be affected by radio interference. Because the nearest residences are more than 2,000  
2 feet from the proposed transmission line, radio interference is not expected.

3  
4 Television interference from the transmission line's corona effects could occur during  
5 bad weather, but that is usually a concern only for transmission lines of 345 kV or greater  
6 and only for receivers within 500 feet of the line. Therefore, television interference is not  
7 expected.

8  
9 Q. Mr. Kertell, the EA contains various mitigation measures concerning, for example,  
10 cultural, biological and other resources. Does Southwest intend to comply with these  
11 measures?

12 A. Yes. The Mitigation Measures stated at Section 2.1.1 of the EA will be followed by  
13 SWTC.

14  
15 Q. Mr. Kertell, please summarize for the Committee your conclusions and recommendations  
16 concerning the compatibility and suitability of the Project.

17 A. The environmental studies performed for this Project were conducted expertly and  
18 thoroughly. Relevant issues were researched and agencies were solicited for comments.  
19 The studies performed meet the standards for compliance with relevant regulations,  
20 including BLM federal regulations for NEPA compliance, Section 7 of the ESA and  
21 Section 106 of the National Historic Preservation Act, as amended. Our analysis  
22 concluded that the Project's impacts would be low to moderate for all resources and the  
23 Project is compatible with the land management plans. Some mitigation is warranted and  
24

1 will be implemented. I would recommend that the Committee issue and the Commission  
2 confirm and approve a CEC for the Project.

3

4 Q. Does this conclude your testimony?

5 A. Yes.

6

7 15169-12/2084015v3

8

9

10

11

12

13

14

15

16

17

18

19

20

21

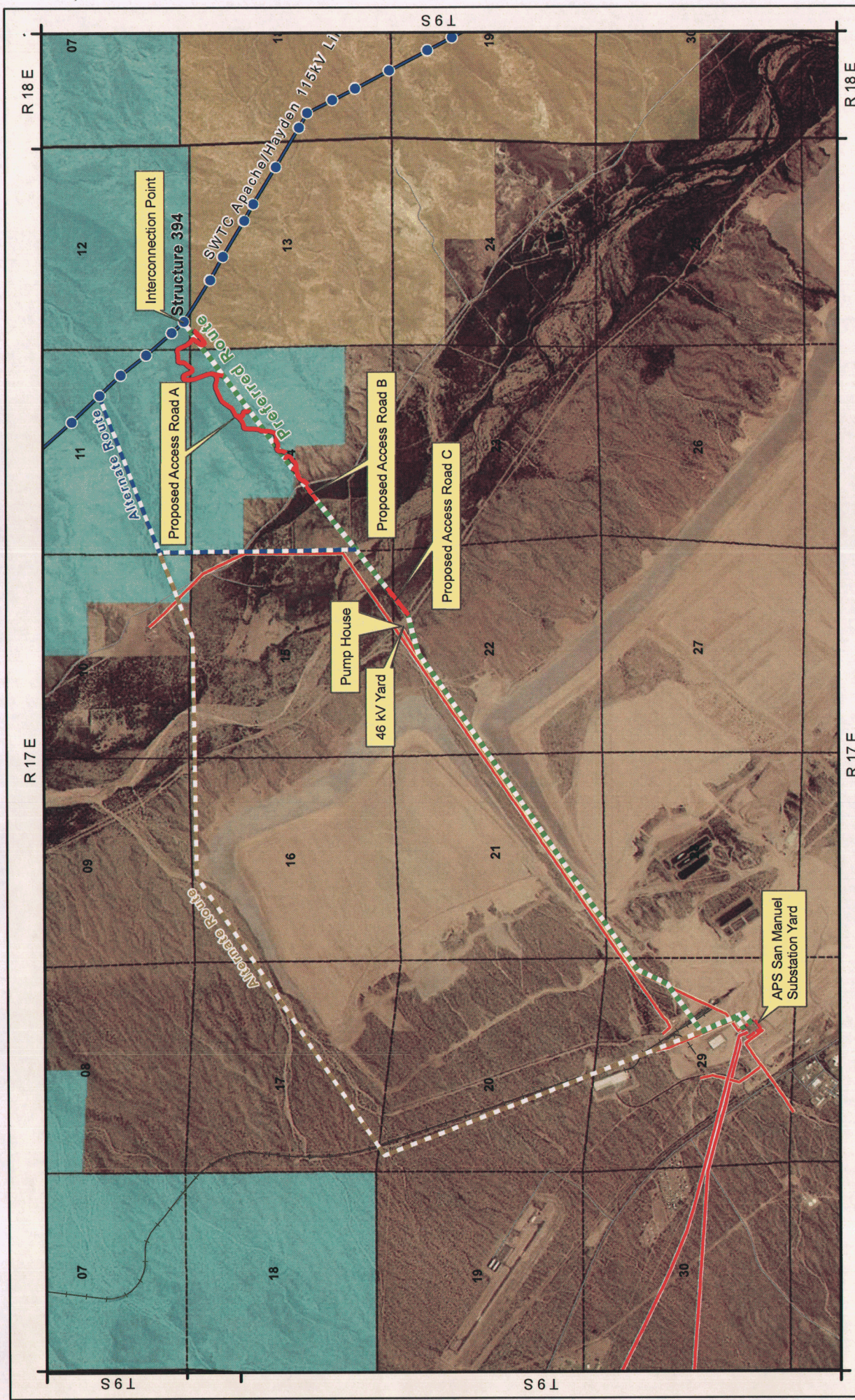
22

23

24

**EXHIBIT KK-1**





**San Manuel Interconnect Project**

**Southwest Transmission Cooperative**

**SWTC GIS**

**April 2009**

Southwest Transmission Cooperative  
1000 S Hwy 80  
Benson, AZ 85602  
Telephone (520) 586-5000

NAD-83  
UTM Zone 12N

0 0.25 0.5 1 Miles

N  
W E  
S

**Key to Map**

	<b>Land Ownership</b>		<b>Township/Range</b>		<b>Existing SWTC Structures</b>		<b>Proposed SWTC Transmission Line</b>

Figure 2. San Manuel Interconnect project detail



1                                   **BEFORE THE ARIZONA POWER PLANT**  
2                                   **AND TRANSMISSION LINE SITING COMMITTEE**

3   IN THE MATTER OF THE APPLICATION  
4   OF SOUTHWEST TRANSMISSION  
5   COOPERATIVE, INC., OR ITS ASSIGNEES,  
6   FOR A CERTIFICATE OF ENVIRONMENTAL  
7   COMPATIBILITY FOR THE SAN MANUEL  
8   INTERCONNECT PROJECT LOCATED IN  
9   THE VICINITY OF SAN MANUEL IN PINAL  
10   COUNTY, ARIZONA

Docket No. L-00000CC-09-0158-00142

Case No. 142

11                                   **CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY**

12           Pursuant to notice given as provided by law, the Arizona Power Plant and Transmission  
13   Line Siting Committee (the "Committee") held a public hearing on May 12, 2009, in  
14   conformance with the requirements of A.R.S. § 40-360, *et seq.*, and A.A.C. R14-3-201, *et seq.*,  
15   for the purpose of receiving evidence and deliberating on the Application of Southwest  
16   Transmission Cooperative, Inc. (the "Applicant") for a Certificate of Environmental  
17   Compatibility for the San Manuel Interconnect Project (the "Project") as described in its  
18   Application.

19           The following members and designees of members of the Committee were present for the  
20   hearing:

21           John Foreman	Chairman, Designee for Arizona Attorney General, Terry Goddard
22           Paul Rasmussen	Designee for Director, Arizona Department of Environmental Quality
23           Gregg Houtz	Designee for Arizona Department of Water Resources
24           Jessica Youle	Designee for Director, Energy Department, Arizona Department of Commerce

1	David Eberhart	Designee for Chairman, Arizona Corporation Commission
2	Barry Wong	Appointed Member
3	Mike Palmer	Appointed Member
4	William Mundell	Appointed Member
5	The Honorable Mike Whalen	Appointed Member
6	The Honorable Patricia Noland	Appointed Member
7	Jeff McGuire	Appointed Member

8 Applicant was represented by counsel, Michael M. Grant of Gallagher & Kennedy, P.A.

9 At the conclusion of the hearing, after consideration of the Application, the evidence and  
10 exhibits presented, the legal requirements of A.R.S. §§ 40-360 to 40-360.13, and in accordance  
11 with A.A.C. R14-3-213, upon motion duly made and seconded, the Committee voted \_\_\_\_ to \_\_\_\_  
12 to grant Applicant, its successors and assigns the following Certificate of Environmental  
13 Compatibility (Case No. 142):

14 Applicant is granted a Certificate of Environmental Compatibility for the construction of  
15 facilities as described in its Application consisting of approximately 4.5 miles of double-circuit  
16 230-kV line which initially will be energized at 115 kV connecting the existing Apache to  
17 Hayden transmission line to the existing APS San Manuel Substation. Beginning at the Apache  
18 to Hayden 115-kV transmission line, the new line will extend about one mile in a southwesterly  
19 direction to River Road. The line then will run approximately one mile to BHP property and  
20 then 2.5 miles to the San Manuel Substation, which is north of the town of San Manuel. A map  
21 of the Project area and the proposed route is attached as Exhibit A.

22 This Certificate is granted upon the following conditions:

23  
24

- 1           1.     The Applicant shall obtain all approvals and permits required by the United  
2                 States, the State of Arizona, the County of Pinal and any other governmental  
3                 entities having jurisdiction necessary to construct the Project.
- 4           2.     The Applicant shall comply with all existing applicable statutes, ordinances,  
5                 master plans and regulations of the United States, the State of Arizona, the  
6                 County of Pinal and any other governmental entities having jurisdiction during  
7                 the construction and operation of the transmission line.
- 8           3.     Pursuant to A.R.S. § 41-844, if any archaeological, paleontological or historical  
9                 site or object that is at least 50 years old is discovered on state, county or  
10                municipal land during the construction or operation of the transmission line, the  
11                Applicant or its representative in charge shall promptly report the discovery to  
12                the Director of the Arizona State Museum, and in consultation with the Director,  
13                shall immediately take all reasonable steps to secure and maintain the  
14                preservation of the discovery.
- 15          4.     If human remains and/or funerary objects are encountered on private land during  
16                 the course of any ground-disturbing activities relating to the construction or  
17                 operation of the transmission line, the Applicant shall cease work on the affected  
18                 area of the Project and notify the Director of the Arizona State Museum pursuant  
19                 to A.R.S. § 41-865.
- 20          5.     The Applicant shall comply with the notice and salvage requirements of the  
21                 Arizona Native Plant Law (A.R.S. §§ 3-901, *et seq.*) and shall, to the extent  
22                 feasible, minimize the destruction of native plants during the construction and  
23                 operation of the transmission line.

- 1           6.     The Applicant shall not assign this Certificate or its interest in the Project  
2                     authorized by this Certificate without prior approval of the Commission. Any  
3                     assignment of this Certificate shall require the assignee to assume all  
4                     responsibilities of the Applicant listed in this Certificate.
- 5           7.     This authorization to construct this Project shall expire five years from the date  
6                     the Certificate is approved by the Commission unless the transmission line is  
7                     capable of operation. However, prior to expiration, the Applicant or its assignees  
8                     may request that the Commission extend this time limitation.
- 9           8.     In the event that the Project requires an extension of the term of this Certificate  
10                    prior to completion of construction, Applicant shall use reasonable means to  
11                    notify all landowners and residents within one mile of the Project, all persons  
12                    who made public comment at this proceeding and all parties to this proceeding of  
13                    the request and the time and place of the hearing in which the Commission will  
14                    consider the request for extension.
- 15          9.     The Applicant shall make every reasonable effort to identify and correct, on a  
16                    case-specific basis, all complaints of interference with radio or television signals  
17                    from operation of the transmission lines and related facilities addressed in this  
18                    Certificate. The Applicant shall maintain written records for a period of five  
19                    years of all complaints of radio or television interference attributable to  
20                    operation, together with the corrective action taken in response to each complaint.  
21                    All complaints shall be recorded to include notations on the corrective action  
22                    taken. Complaints not leading to a specific action or for which there was no  
23                    resolution shall be noted and explained.
- 24



1           10.    Within 120 days of the Commission decision granting this Certificate, Applicant  
2                   will post signs in public rights-of-way giving notice of the Project corridor to the  
3                   extent authorized by law. The Applicant shall place signs in prominent locations  
4                   at reasonable intervals such that the public is notified along the full length of the  
5                   transmission line until the transmission structures are constructed. To the extent  
6                   practicable, within 45 days of securing easement or right-of-way for the Project,  
7                   the Applicant shall erect and maintain signs providing public notice that the  
8                   property is the site of a future transmission line. Such signage shall be no smaller  
9                   than a normal roadway sign. The signs shall advise:

- 10                   (a) That the site has been approved for the construction of Project facilities;  
11                   (b) The expected date of completion of the Project facilities;  
12                   (c) A phone number for public information regarding the Project;  
13                   (d) The name of the Project;  
14                   (e) The name of the Applicant; and  
15                   (f) The website of the Project.

16           11.    Applicant, or its assignee(s), shall design the transmission lines to incorporate  
17                   reasonable measures to minimize impacts to raptors.

18           12.    Applicant, or its assignee(s), shall use non-specular conductor and dulled surfaces  
19                   for transmission line structures.

20           13.    Before construction on this Project may commence, the Applicant shall file a  
21                   construction mitigation and restoration plan ("Plan") with ACC Docket Control.  
22                   Where practicable, the Plan shall specify the Applicant's plans for construction  
23                   access and methods to minimize impacts to wildlife and to minimize vegetation  
24

1 disturbance outside of the Project right-of-way particularly in drainage channels  
2 and along stream banks, and shall re-vegetate, unless waived by the landowner,  
3 native areas of construction disturbance to its preconstruction state outside of the  
4 power-line right-of-way after construction has been completed. The Plan shall  
5 specify the Applicant's plans for coordination with the Arizona Game and Fish  
6 Department and the State Historic Preservation Office. The Applicant shall use  
7 existing roads for construction and access where practicable and the Plan shall  
8 specify the manner in which the Applicant makes use of existing roads.

9 14. With respect to the Project, Applicant shall participate in good faith in state and  
10 regional transmission study forums to coordinate transmission expansion plans  
11 related to the Project and to resolve transmission constraints in a timely manner.

12 15. The Applicant shall provide copies of this Certificate to Pinal County, the Arizona  
13 State Land Department, the Bureau of Land Management, the State Historic  
14 Preservation Office and the Arizona Game and Fish Department.

15 16. Prior to the date construction commences on this Project, the Applicant shall  
16 provide known homebuilders and developers within one mile of the route the  
17 identity, location and a pictorial depiction of the type of power line being  
18 constructed, accompanied by a written description, and encourage the developers  
19 and homebuilders to include this information in the developers' and  
20 homebuilders' homeowners' disclosure statements.

21 17. Before commencing construction of Project facilities located parallel to and  
22 within 100 feet of any existing natural gas or hazardous liquid pipeline, the  
23 Applicant shall:  
24

1 (a) Perform the appropriate grounding and cathodic protection studies to  
2 show that the Project's location parallel to and within 100 feet of such  
3 pipeline results in no material adverse impacts to the pipeline or to public  
4 safety when both the pipeline and the Project are in operation. If material  
5 adverse impacts are noted in the studies, Applicant shall take appropriate  
6 steps to ensure that such material adverse impacts are mitigated.

7 Applicant shall provide to Commission Staff reports of studies  
8 performed; and

9 (b) Perform a technical study simulating an outage of the Project that may be  
10 caused by the collocation of the Project parallel to and within 100 feet of  
11 the existing natural gas or hazardous liquid pipeline. This study should  
12 either: i) show that such outage does not result in customer outages; or  
13 ii) include operating plans to minimize any resulting customer outages.

14 Applicant shall provide a copy of this study to Commission Staff.

15 18. Applicant will follow the latest Western Electricity Coordinating Council/North  
16 American Electric Reliability Corporation Planning standards as approved by the  
17 Federal Energy Regulatory Commission, and National Electrical Safety Code  
18 construction standards.

19 19. The Applicant shall submit a self-certification letter annually, identifying progress  
20 made with respect to each condition contained in the Certificate, including which  
21 conditions have been met. Each letter shall be submitted to Docket Control of the  
22 Arizona Corporation Commission on March 1 beginning in 2010. Attached to  
23 each certification letter shall be documentation explaining how compliance with  
24

1 each condition was achieved. Copies of each letter along with the corresponding  
2 documentation shall be submitted to the Arizona Attorney General and  
3 Department of Commerce Energy Office. The requirement for the self-  
4 certification shall expire on the date the Project is placed into operation.

5 20. Within sixty (60) days of the Commission decision granting this Certificate, the  
6 Applicant shall make good faith efforts to commence discussions with private  
7 landowners, on whose property the Project corridor is located, to identify the  
8 specific location for the Project's right-of-way and placement of poles.

9 21. The Applicant shall expeditiously pursue reasonable efforts to work with private  
10 landowners on whose property the Project right-of-way will be located, to  
11 mitigate the impacts of the location, construction and operation of the Project on  
12 private land.

### 13 **FINDINGS OF FACT AND CONCLUSIONS OF LAW**

14 This Certificate incorporates the following findings of fact and conclusions of law:

- 15 1. The Project is in the public interest because it aids the state in meeting the need  
16 for an adequate, economical and reliable supply of electric power.
- 17 2. In balancing the need for the Project with its effect on the environment and  
18 ecology of the state, the conditions placed on the CEC by the Committee  
19 effectively minimize its impact on the environment and ecology of the state.
- 20 3. The conditions placed on the CEC by the Committee resolve matters concerning  
21 the need for the Project and its impact on the environment and ecology of the  
22 state raised during the course of proceedings, and as such, serve as the findings  
23 on the matters raised.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

4. In light of these conditions, the balancing in the broad public interest results in favor of granting the CEC.

GRANTED this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

ARIZONA POWER PLANT AND  
TRANSMISSION LINE SITING COMMITTEE

By \_\_\_\_\_  
John Foreman, Chairman

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

APPROVED BY ORDER OF THE ARIZONA CORPORATION COMMISSION

Chairman	Commissioner	Commissioner
<hr/>		
Commissioner		Commissioner

IN WITNESS WHEREOF, I Brian C. McNeil, Executive Secretary of the Arizona Corporation Commission, set my hand and cause the official seal of the Commission to be affixed this \_\_\_\_ day of \_\_\_\_\_, 2009.

By \_\_\_\_\_  
Brian C. McNeil  
Executive Secretary

Dissent: \_\_\_\_\_

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

## **EXHIBIT A**

### **Project Location Map and Proposed Route**

